Name:

at1124exam: Radicals and Squares (v815)

Question 1

Simplify the radical expressions.

$$\sqrt{99} \qquad \sqrt{27} \qquad \sqrt{75}$$

Question 2

Find all solutions to the equation below:

$$4(x+6)^2 - 2 \;=\; 62$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 16x \;=\; -39$$

Question 4

A quadratic polynomial function is shown below in standard form.

$$y \;=\; 4x^2 + 40x + 92$$

Express the function in **vertex form** and identify the **location** of the vertex.